The netANALYZER is a tool for the simple analysis of Real-Time Ethernet networks. The scope of delivery includes a capture-hardware for recording the telegrams on the network as well as a graphical user software for Windows with extensive analysis functions. Of course, the netANALYZER hardware can also be used together with other analysis software such as Wireshark.

Using netANALYZER and the addon software netANALYZER Scope you always have your Ethernet network at your fingertips. Measure important key data such as station lists, alarms, process values, network load and telegram jitter without affecting the network or PLC.

To narrow down to sporadic errors netANALYZER box supports autonomous operation without PC. Thus, one can record telegram traffic quickly in the automation floor by a simple touch of a button. With the help of the powerful trigger function the netANALYZER can remain in a plant for a period of time, allowing facilitated troubleshooting. On the occurrence of trigger events the netANALYZER automatically generates telegram snapshots that can be interpreted later using the netANALYZER Scope software.
netANALYZER - Ethernet analysis made easy

**netANALYZER Hardware**
- Passive recording with zero-delay < 1 ns
- Capture up to 4 Ethernet ports and 4 digital switching events
- ± 5 ns measurement accuracy, 1 ns resolution
- Detailed error information for each telegram
- Rugged carrying case for field use

**netANALYZER Scope**
- Intuitive graphical interface
- Eliminates manual analysis of endless telegram records
- Common display on a timeline of:
  - Process data
  - Network events
  - Network load
  - Frame jitter
  - Frame delay
- Quicktest function for easy diagnosis of
  - Network stations
  - Cyclic and acyclic connections
  - Alarms and other important events
- Comprehensive trigger function
- Import of frame records for graphical analysis
- Save and load complete analysis projects

**Autonomous operation without PC**
- Quick and easy recording „on site“ without connected PC
- Continuous operation with customizable triggers
- Creating telegram snapshots at triggering events

**Get to know the netANALYZER and netANALYZER Scope**
- Online videos with many useful tips and tricks on YouTube
- Learn the handling of netANALYZER and netANALYZER Scope in our product trainings

**Open to all applications**
- Open driver API allows use of recording hardware in own measurement applications
- Out-of-the-box supported third-party software:
  - Wireshark
  - MECHATROLINK-III Analyzer
  - Sercos Monitor
  - TCN Ethernet StreamAnalyzer

**netANALYZER connection diagram**
- Interactive operation
- Autonomous operation

**Open API**
-netANALYZER - Ethernet analysis made easy
### Technical Data

#### Overview

**Parameter** | **NANL-C500-RE** | **NANL-B500G-RE**
--- | --- | ---
Form factor | PC Card | Metal Box
Ethernet Channels | 4x Ethernet 10/100BASE-TX RJ45 | 
Digital Channels | 4x digital I/O 3.3 V | 4x digital I/O 3.3 V / 24 V configurable
TAPs | 2, integrated with zero-delay < 1 ns | 
Time Stamp | ± 5 ns measurement accuracy, 1 ns resolution | 
Recording interface for autonomous operation | n/a | USB 2.0 (hard disc or memory stick)
Supply Voltage | 3.3 V / 800 mA | nominal 24 V DC / 700 mA / 16,8 W, range 18 V ... 30 V DC
Operating Temperature | 0° C - 55° C | 
Dimensions (LxWxH) | 137 x 107 x 17,5 mm | 173 x 115 x 62 mm
System Requirements | PC or notebook with the following specifications: Intel-compatible CPU, approx. 2 GHz or faster (depending on the data volume to be analyzed) DirectX 9 compatible graphics device 20 MB available on the hard drive for the netANALYZER software, plus to be recorded data | 

#### Technical Data

**netANALYZER Scope**

- Recording history and signal quantity: Unlimited, only limited by the PC’s memory
- Signal type: Input and output process values, network load, frame jitters, custom telegram data, PROFINET events: alarms, cycle failures, device start up, station- and conversations-lists
- Prerequisite for live recording: netANALYZER device, NANL-C500-RE or NANL-B500E-RE or NANL-B500G-RE
- Full version: Unlimited recording duration
  - Requires netANALYZER device with activated netANALYZER Scope license
- Free evaluation version: Limited recording duration without quicktest function, can run with netANALYZER device without netANALYZER Scope license
- Offline mode: Without netANALYZER device or netANALYZER Scope license, however stored recordings of any duration can be loaded
- Trigger: Freely configurable complex trigger conditions (comparisons, boolean operations, signal changes)
- Operating system: Windows 7, Windows 8, Windows 10
- Project import: EtherCAT: ENI, PROFINET: GSDML, and/or manual signal configuration, PCAP files

#### Article Description

<table>
<thead>
<tr>
<th>Article Description</th>
<th>Article Number</th>
<th>Article</th>
</tr>
</thead>
<tbody>
<tr>
<td>NANL-C500-RE</td>
<td>7310.100</td>
<td>netANALYZER Card PCI RTE</td>
</tr>
<tr>
<td>NANL-B500G-RE</td>
<td>7313.100</td>
<td>netANALYZER Box Gigabit RTE</td>
</tr>
<tr>
<td>NANL-B500G-RE CASE</td>
<td>7313.102</td>
<td>Carrying case for netANALYZER Box</td>
</tr>
<tr>
<td>LIC/SCP/BS</td>
<td>8582.001</td>
<td>netANALYZER Scope base License plus min. one addon</td>
</tr>
<tr>
<td>LIC/SCP/PN</td>
<td>8582.030</td>
<td>netANALYZER Scope addon License PROFINET process data and events</td>
</tr>
<tr>
<td>LIC/SCP/OPN</td>
<td>8582.031</td>
<td>netANALYZER Scope addon license PROFINET quicktester</td>
</tr>
<tr>
<td>LIC/SCP/ECAT</td>
<td>8582.040</td>
<td>netANALYZER Scope addon License EtherCAT process data</td>
</tr>
<tr>
<td>LIC/SCP/CVF</td>
<td>8582.050</td>
<td>netANALYZER Scope addon License Custom value filters</td>
</tr>
<tr>
<td>LIC/SCP/PCAP</td>
<td>8582.070</td>
<td>netANALYZER Scope addon License PCAP import</td>
</tr>
<tr>
<td>LIC/NANL/SA</td>
<td>8582.060</td>
<td>netANALYZER addon License Autonomous operation NANL-B500G without PC</td>
</tr>
</tbody>
</table>

**Note:** All technical details are provisional and are subject to changes without any further notification.